WORKING PROJECT TITLE
Using economic and ecological modelling to facilitate the eradication of the House Crow (*Corvus splendens*) in Cape Town

CORE TEAM MEMBER
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ACADEMIC LEVEL OF THE PROJECT
MSc and PhD

PROJECT BACKGROUND
The House Crow (*Corvus splendens*) originates on the Indian subcontinent and is one of the world’s most invasive bird species (Suliman et al. 2011), with invasive populations in Africa, Asia and Australia (Nyári et al 2006). These crows are highly intelligent, with reported impacts including reduction of native bird diversity through predation, competition and disease. The bird also has economic impacts on grain crops and livestock, and on humans as it readily attacks to defend nests or steal food (Evans et al 2014). Commensurate with the severe impacts, *C. splendens* was listed as Category 1a in NEMBA (2014) as a species which needs to be controlled.

Populations of House Crows have existed in Durban since the 1970s, but recent efforts have all but eradicated it there. House Crows were first reported in Cape Town the 1980s and are believed to have been transported on ships moving down the East coast. The Cape Town population underwent a dramatic increase in the early 2000s as it spread into the Cape flats and surrounding areas. This led to the City of Cape Town initiating an eradication campaign in 2008. This campaign has concentrated on poisoning crows using bait and these actions have reduced crow numbers from 10 000 to around 200 birds. The final eradication of this species from Cape Town relies on continued effort and strategic deployment of limited
resources to ensure completion. An integral part of this will be an analysis of the existing data on eradication and forecasting this to determine removal strategies and the required economic input.

The eradication programme has collected considerable data during its course and analyses of these data will form the basis for this research project. These data include:

- 11,000 records of baiting events (including counts of birds present)
- >600 carcass records
- Monthly roost counts
- Resources used for eradication - including number of employees and programme costs

This project aims to document and facilitate the eradication of the House Crow from Cape Town both using data collected in a modelling approach (see Brook et al 2003), and through working with the Invasive Species Unit to assess and implement strategies for the remaining population of House Crows - including the testing of novel eradication methods. The model will be used to cost the eradication effort and to determine whether alternative strategies could significantly reduce the cost or efficacy of future eradication programmes.

**FURTHER READING**


Avian Biology, 37(4), 306-311.


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